

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 2004/000391

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b>				
<b>IPC7: G01S 5/02, G05D 1/02</b> According to International Patent Classification (IPC) or to both national classification and IPC				
<b>B. FIELDS SEARCHED</b>				
Minimum documentation searched (classification system followed by classification symbols)				
<b>IPC7: E21F, G01S, G05D</b>				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
<b>SE,DK,FI,NO classes as above</b>				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)				
<b>EPO-INTERNAL, WPI, PAJ</b>				
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
A	EP 1243939 A1 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.), 25 Sept 2002 (25.09.2002), abstract --	1-11		
A	WO 0169041 A1 (SANDVIK TAMROCK OY), 20 Sept 2001 (20.09.2001), figure 4, abstract --	1-11		
A	WO 0107976 A1 (CMTE DEVELOPMENT LTD.), 1 February 2001 (01.02.2001), abstract --	1-11		
A	WO 03012470 A2 (SIEMENS AKTIENGESELLSCHAFT), 13 February 2003 (13.02.2003), abstract --	1-11		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.				
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top; border: none;">           * Special categories of cited documents:            "A" document defining the general state of the art which is not considered to be of particular relevance            "E" earlier application or patent but published on or after the international filing date            "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)            "O" document referring to an oral disclosure, use, exhibition or other means            "P" document published prior to the international filing date but later than the priority date claimed         </td> <td style="width: 50%; vertical-align: top; border: none;">           "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention            "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone            "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art            "&amp;" document member of the same patent family         </td> </tr> </table>			* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family			
Date of the actual completion of the international search		Date of mailing of the international search report		
26 October 2004		29 -10- 2004		
Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86		Authorized officer  Göran Magnusson /itw Telephone No. +46 8 782 25 00		

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02054813 A1 (EKAHAU OY), 11 July 2002 (11.07.2002), abstract --	1-11
A	US 6226572 B1 (M.TOJIMA ET AL), 1 May 2001 (01.05.2001), abstract -- -----	1-11

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## INTERNATIONAL SEARCH REPORT

Information on patent family members

01/10/2004

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